People and Products

A new tube inserter for safely inserting glass tubes in rubber stoppers, rubber tubing, and bulbs is offered by the CENTRAL SCIENTIFIC COMPANY, Chicago, Ill.

❖

LABLINE INC., Chicago, Ill., has announced a new mobile laboratory glassware washer featuring a selection of nine nylon brushes which can be changed in a few seconds without draining the sink.

❖

An electronic relay offered by ARTHUR S. LAPINE AND COMPANY, Chicago, Ill., was designed to eliminate shock hazard when used for water-bath operation.

❖

NOPCO CHEMICAL COMPANY, Harrison, N. J., has announced plans for the construction of a new plant devoted to developmental work and pilot production of new and improved products.

❖

The research facilities for GENERAL MILLS INC. will be moved from the present downtown location to a campus-like setting on the outskirts of Minneapolis, Minn., early in 1956. Overcrowded conditions and lack of room for expansion make the move necessary.

❖

This year is the 60th anniversary of the discovery of X-rays by Conrad Roentgen on November 8, 1895.

Fatty Acids Drop

PRODUCTION of fatty acids in July 1955 totaled 25.9 million lbs., seasonally below the level recorded last month but still running ahead of 1954 production figures. July production was 25.6% below that of June 1955 but was 24.5% more than the July 1954 figure of 20.8 million lbs.

Total disposition was 31.1 million lbs., approximately 6.4 million lbs. under the June figures, but some 6.0 million lbs. above the July 1954 level. This included some 1.9 million sales within the industry so that apparent disposition is somewhat higher than actual. Stocks, including work in process, decreased to 39.8 million lbs.

Elects AIC Chapter Officers

The New Jersey Chapter of the American Institute of Chemists has elected the following officers for 1955–56: Cecil L. Brown, Standard Oil Development Company, Linden, N. J., chairman; Herbert W. MacKinney, Bakelite Company, Bloomfield, N. J., chapter representative to the national council of the Institute; W. R. Sullivan, Hoffmann-La Roche Inc., Nutley, N. J., treasurer; and A. B. Scott, Merck and Company, Rahway, N. J., secretary.

Chairman-elect is Max Bender, American Cyanamid Company, Bound Brook, N. J.

Wheeler Named to Collaborator

D. H. Wheeler, principal chemist at General Mills Inc., Minneapolis, Minn., has been named a collaborator by the Southern Utilization Research Branch of the United States Department of Agriculture, New Orleans, La. He will spend several days each year examining the utilization research on vegetable oils and pine gums at New Orleans and at Olustree, Fla., and will make suggestions and comments about the work

Offer Eight Volumes on Microscopy

A NEW SET of eight volumes entitled "The Handbook of Microscopy in Technology" was recently published in Germany and is now available in the United States through E. Leitz Inc., 468 Fourth avenue, New York 16, N. Y. The books were edited by Hugo Freund, and contributors include more than 100 European scientists.

They offer the latest data available in Europe on raw materials and their industrial applications, including minerals, ores, and metals, coal and coke, wood, paper, textiles, chemicals, and so on. They are well bound and profusely illustrated. Volume IV, for example, on silicates, contains 850 pages, with more than 400 original pictures and many charts printed on special paper.

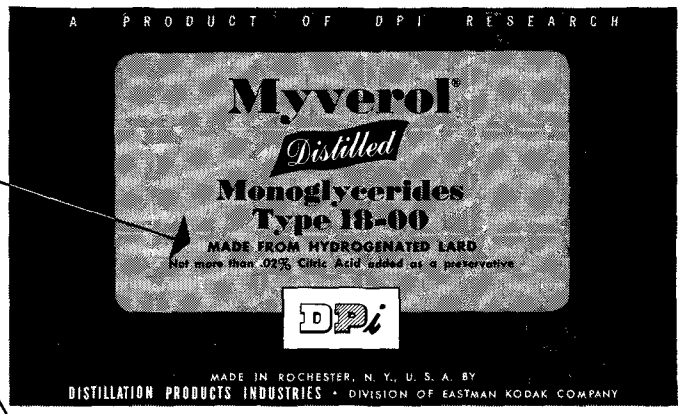
Each volume runs $30 to $40 and is available only in German. The books may be bought as a set or individually.

It's on the label

We purify Myverol Distilled Monoglycerides by our unique molecular distillation process. This removes most of the impurities that degrade taste, odor and color. It concentrates the products to a high monoester content that makes a little go a very long way.

We make Myverol Distilled Monoglycerides in bulk from lard, hydrogenated lard, or cottonseed oil. If you need a monoglyceride made from some other fat or oil, we'll entertain a proposition to make it for you. For example, our Type 18-06 is labeled "Made from hydrogenated vegetable oil." The oil we're using most often here is soybean oil because that's what our customers are asking for. But we'll make it from any other hydrogenated oil if you wish, and you'll know exactly what it is.

For samples, information, or a quotation on any type of Myverol Distilled Monoglycerides, write ***Distillation Products Industries,*** Rochester 3, N. Y. Sales offices: New York, Chicago, and Memphis • W. M. Gillies and Company, Los Angeles, Portland, and San Francisco • Charles Albert Smith Limited, Montreal and Toronto.



DPi

distillers of monoglycerides made from natural fats and oils

Distillation Products Industries *is a division of* **Eastman Kodak Company**

Organic Oxidation with H_2O_2 is an accepted production method

Hydrogen peroxide has infinite possibilities in organic oxidation reactions and is playing its part in the production line of many manufacturers. It is being used in the commercial manufacture of many epoxy compounds including plasticizers and selective insecticides, and in the production of pharmaceuticals such as cortisone, anti-histamines and others.

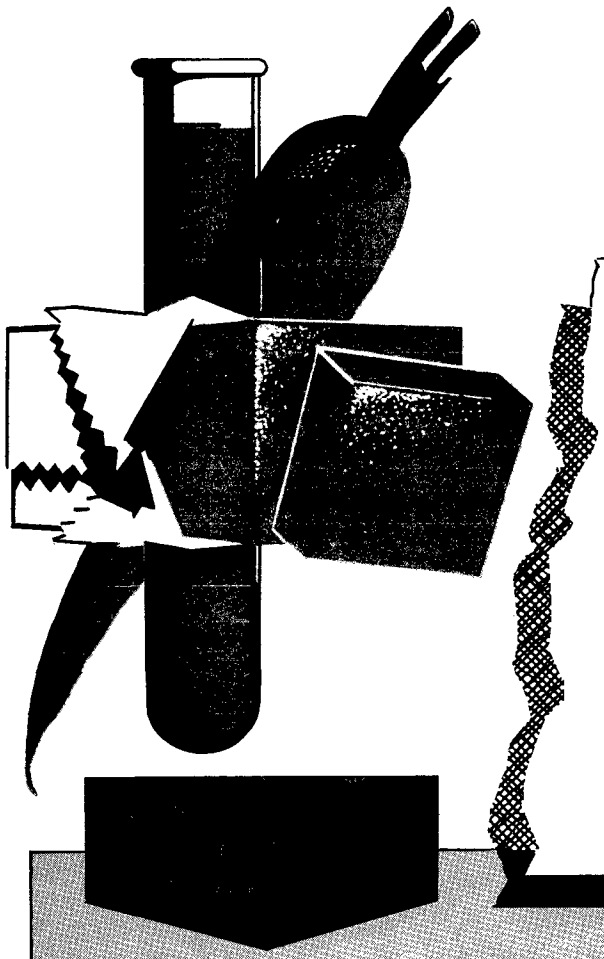
Becco technical consultants—in the field or at our laboratories in Buffalo—are thoroughly familiar with safe and effective methods for using this versatile reagent. You are invited to make use of Becco's modern laboratories, large technical staff, and unparalleled experience in the manufacture and application of hydrogen peroxide. *Write for special bulletins on epoxidation and hydroxylation or for Becco's complete list of bulletins on the use of Peroxygen chemicals.*

BECCO CHEMICAL DIVISION

FOOD MACHINERY AND CHEMICAL CORPORATION

STATION B, BUFFALO 7, N.Y.
BUFFALO • BOSTON • CHARLOTTE • CHICAGO
NEW YORK • PHILADELPHIA • VANCOUVER, WASH

BARNETT'S Carotene is *Natural* Carotene



the perfect source of natural yellow and Vitamin A for food processors

More than 20 years of pioneering experience in the commercial production of natural carotene is your assurance that BARNETT'S CAROTENE is of highest purity and constant uniformity... The first readily soluble carotene suitable for use in margarine and other delicate food products.

NATURAL YELLOW COLOR Barnett's Carotene is extracted from carrots by a patented process. It provides a NATURAL HUE (more yellow and less red).

EXTRA VITAMIN POTENCY Biological assays by the accepted USP procedures show that Barnett's Carotene has more Vitamin A potency than we claim.

STABILITY The high purity of Barnett's Carotene assures stability. . . . Does not affect the storage quality of food . . . Does not impair its flavor or odor.

DIFFERENT FORMS Offered as Carotene Crystals and as Carotene in Oil of various potencies. Microcrystalline Carotene in Oil (particularly adapted for use in margarine and shortening) is covered by U. S. Patent No. 2,477,928.

MORE SOLUBLE Barnett's Carotene has greater solubility — an important factor in uniform distribution of color and time-saving processing.

WIDE COMMERCIAL ACCEPTANCE Widely used by many leading food processors (margarine, shortening, bakery and dairy products). Barnett's Carotene is used in foods that appear daily on the tables of over twenty million Americans.

COMPETITIVELY PRICED Increased production and improved extraction processes made recent price reductions possible . . . The lowest ever offered on high quality natural carotene.

PACKAGED TO ORDER Just advise us as to your requirements and Barnett's Carotene will be conveniently packaged to suit your needs.

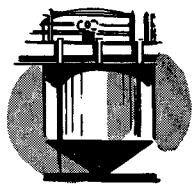
WRITE FOR NEW PRICE LIST, SAMPLES AND INFORMATION ON THE USE OF BARNETT'S CAROTENE

BARNETT *Laboratories* INC.

6256 CHERRY AVENUE, LONG BEACH 5, CALIFORNIA

Barnett's Carotene is Natural Carotene

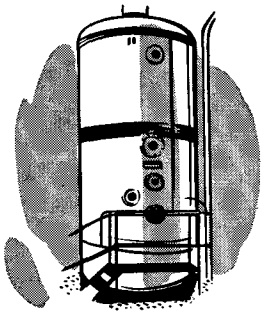
CUSTOM-BUILT PLANTS

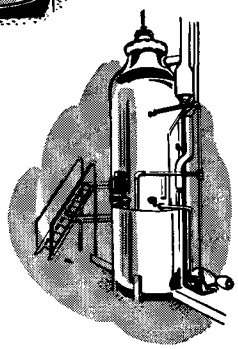


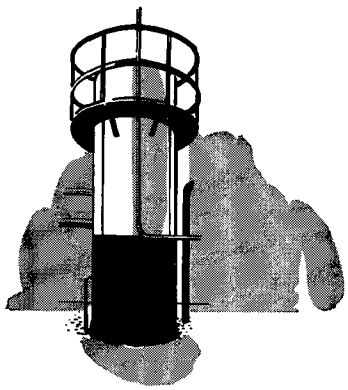
All Over the World

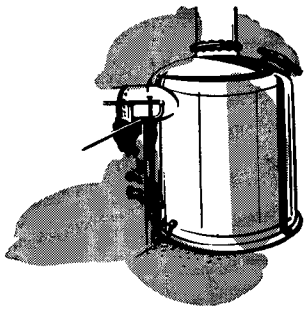
FOR

Glycerine – Fatty Acids – Edible Oils









WURSTER & SANGER OFFERS . . .

- **Consulting service to aid in solving your operating, process or equipment problems**
- **Design of a complete new plant or**
- **Equipment and specifications to modernize your present plant.**

FILTREX Solvent Extraction—world's most versatile direct solvent extraction process for oils—proved operating economy—maximum oil yield and quality.

Continuous Fatty Acid Distillation—unsurpassed product quality—yields exceeding 99% utilizing W&S original development of Dowtherm Heated Bubble Cap Trays.

Fat Splitting—high pressure non-catalytic and low pressure catalytic autoclave processes for production of fatty acids and glycerine.

Hydrogenation—foremost designers of equipment for hardening fats, oils, fatty acids for edible and technical use.

Oil Refining—for production of highest quality cooking and salad oils—batch neutralizing, vacuum bleaching, batch or continuous deodorizing.

Glycerine Recovery and Refining—W&S equipment is the choice of large and small producers for efficiency of recovery and refining yields of C.P., High Gravity or Dynamite glycerine up to 99% in one distillation.

Margarine, Shortening, Vanaspati—and other process plants are offered involving production of special products from fats, fatty acids and glycerine.

For further details and bulletins write direct or to the representative nearest you.

REPRESENTATIVES

Mexico: Desarrollo Industrial, Apartado 13323, Mexico 1, D. F.

Cuba: Consolidated Trading Co., Inc., Apartado 142, Havana, Cuba.

Brasil: Industrias Quimicas do Brasil, S.A., Caixa Postal 3832, Rio de Janeiro, Brasil.

Philippines: Edward J. Nell Co., P.O. Box 612, Manila, Philippines

India: Bapasola Trading & Engineering Co., 79-81 Gowalia Tank Road, Bombay, India.

Egypt: Associated Supplies Bureau, P.O. Box 1004, Alexandria, Egypt.

WURSTER & SANGER, INC.

EXPORT SALES AFFILIATE:

WURSTER & SANGER INTERNATIONAL, INC.

(DEPT. 8) 5201 SOUTH KENWOOD AVENUE, CHICAGO, ILLINOIS, U.S.A.

Tune In on
Rufert Nickel Catalyst's
4-Part Harmony

STRONG, RUGGED **ACTIVITY** EVEN AT LOW TEMPERATURES AND PRESSURES

HIGHLY **SELECTIVE** OVER WIDE RANGE

EXCELLENT **FILTER-ABILITY**

PREDICTABLE, UNIFORM BEHAVIOR

Hydrogenators specify four requirements for their catalyst, and Rufert Catalyst meets the test *on all four* with:

1. **Uniform, predictable behavior**
2. **High selectivity over wide range**
3. **Strong rugged activity—even at low temperatures and pressures**
4. **Excellent filterability**

Add to these such extra benefits as ease of handling and the fact that you can get Rufert Catalyst *when you want it,* and you'll see cause enough for contacting Harshaw for more information. Please call or write today.

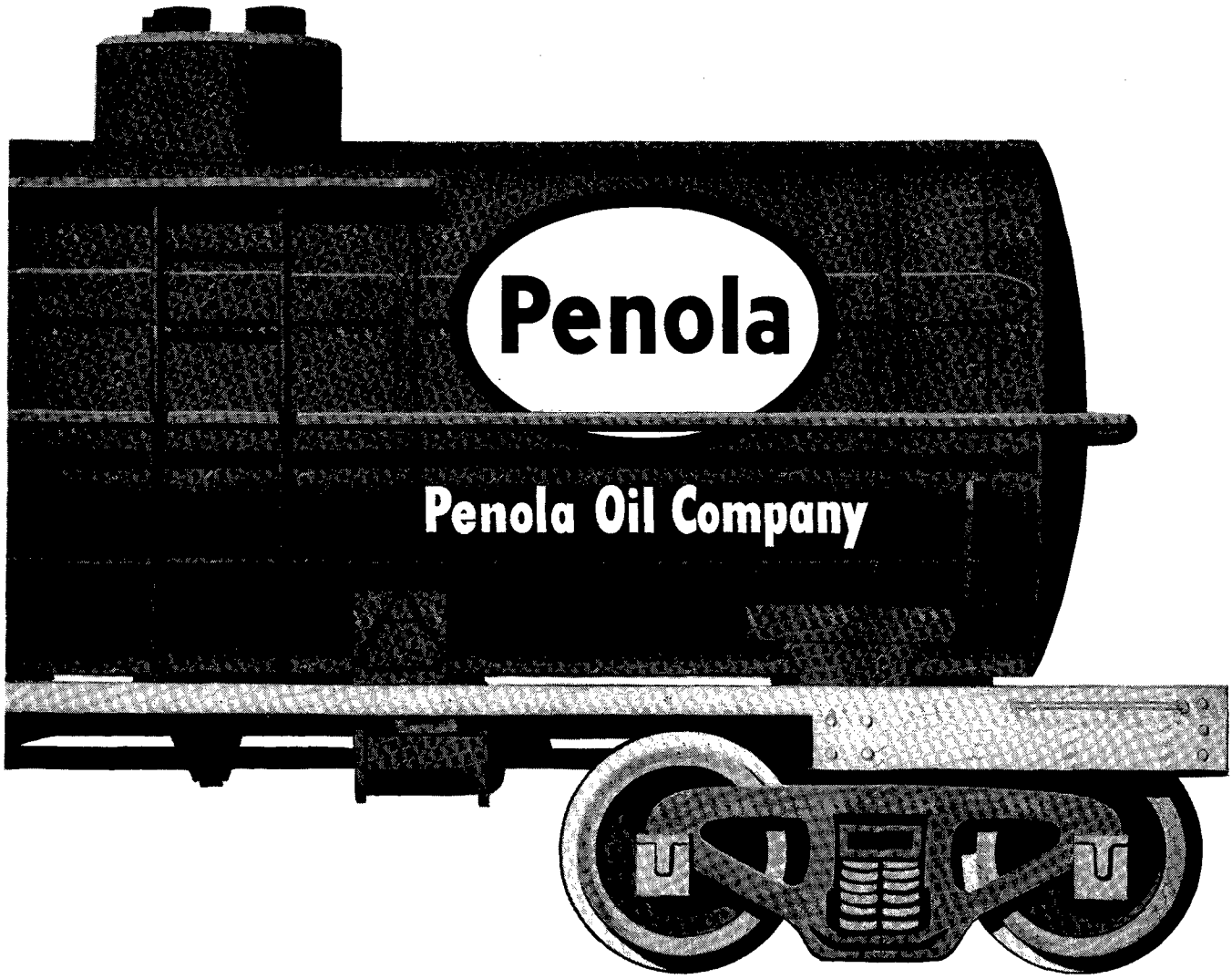
HARSHAW

Manufactured by

The Harshaw Chemical Co.

1945 East 97th Street • Cleveland 6, Ohio

Chicago 32, Illinois • Cincinnati 13, Ohio • Cleveland 6, Ohio • Houston 11, Texas • Los Angeles 22, Calif.
Detroit 28, Michigan • Philadelphia 48, Penna. • Pittsburgh 22, Penna. • Hastings-On-Hudson 6, N. Y.



For more economical processing

be sure you specify

PENOLA HEXANE

Penola Hexane assures you high efficiency and economical processing with these 7 features:

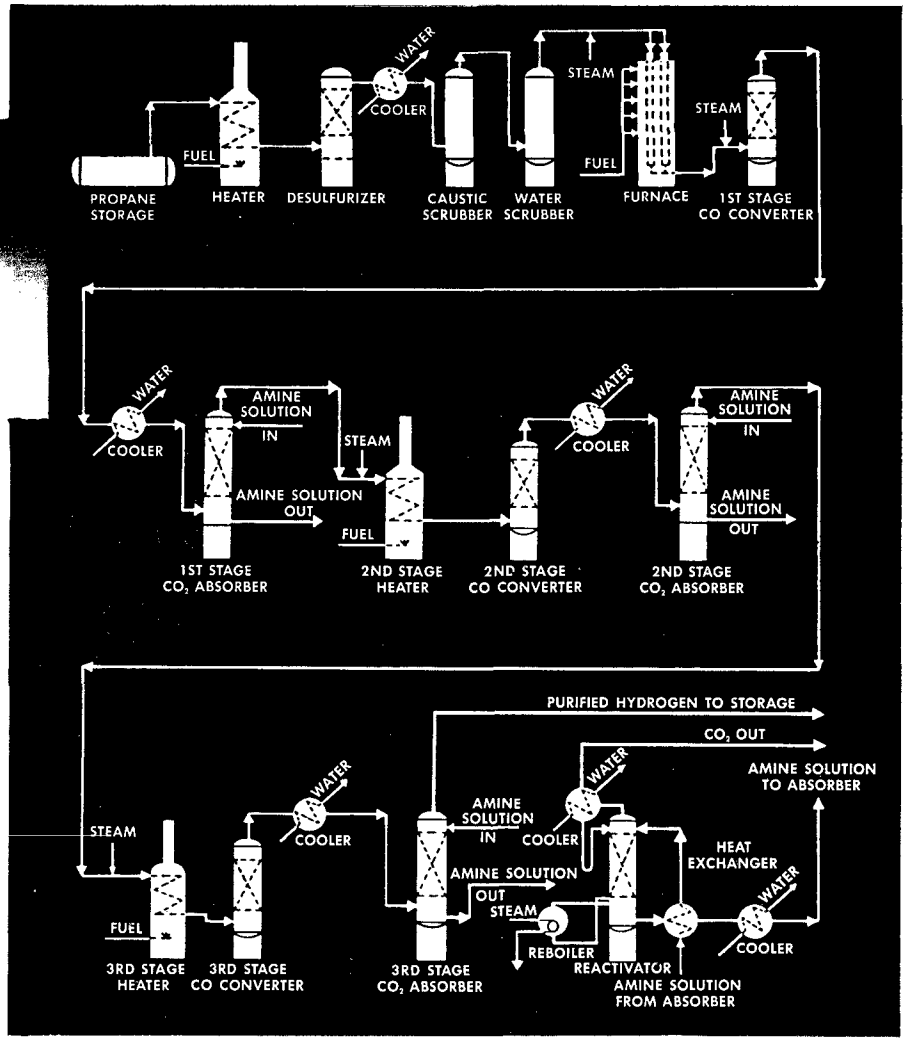
- *High oil recovery*
- *Low vapor pressure*
- *Narrow boiling range*
- *Efficient solvent recovery*
- *Highest purity*
- *Special handling*
- *Immediate availability*

For your processing needs be sure to specify Penola Hexane for dependable uniformity and high quality.

For expert technical assistance and any technical data you require regarding your processing operations, be sure to call the Penola Office nearest you.

PENOLA OIL COMPANY · *New York* · *Detroit* · *Chicago*

How Girdler HYGIRTOL* plant cuts costs



IN the manufacture of high-purity hydrogen, the Girdler HYGIRTOL Plant utilizes natural gas, propane or butane as hydrocarbons for process materials. These raw materials are readily available at reasonable cost.

This is only one of the many reasons why owners of HYGIRTOL Plants report that they produce hydrogen at the lowest cost of all commercial methods.

Another reason for the low operating cost of these Girdler hydrogen plants is that their labor requirements are low. One man per shift can operate the average sized plant and also can do routine maintenance work around the plant.

Advantages of HYGIRTOL Plant

Records of Girdler hydrogen plants prove these important advantages:

- The finished hydrogen is produced at low cost.
- The hydrogen purity obtained is equal to or better than that of any other commercial method of production.
- The raw materials used are readily available at reasonable cost and are easily handled.
- The plants operate continuously and changes in production rates from 50% to 100% of rated capacity can be made rapidly and easily to suit the needs for hydrogen.
- All operations are clean and quiet, and no dust, dirt, odors, or smoke are produced.

Only one man per shift is required to operate the average sized plant.

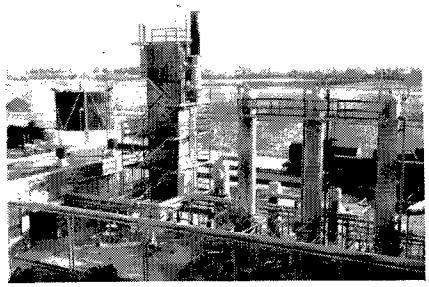
Plants are built outdoors and the cost of expensive building is saved.

All catalysts used have great activity and long life, and all are manufactured in Girdler's catalyst plant.

Pure carbon dioxide is produced and may be recovered as a valuable by-product.

TYPICAL PLANT

In a typical HYGIRTOL hydrogen plant the hydrocarbon-steam catalytic reforming process is combined with suitable hydrogen purification steps to form an integrated unit for the continuous production of hydrogen gas of a quality equivalent to or better than commercial electrolytic hydrogen.



HYGIRTOL plant at Mrs. Tucker's Products, Division of Anderson, Clayton & Co.

Girdler Service is Complete

HYGIRTOL hydrogen plants are designed and built entirely by Girdler. A 32-page Girdler book describes the various processes for producing hydrogen. Write for your copy today.

*Hygirtol is a trade mark of the Girdler Company

The GIRDLER Company

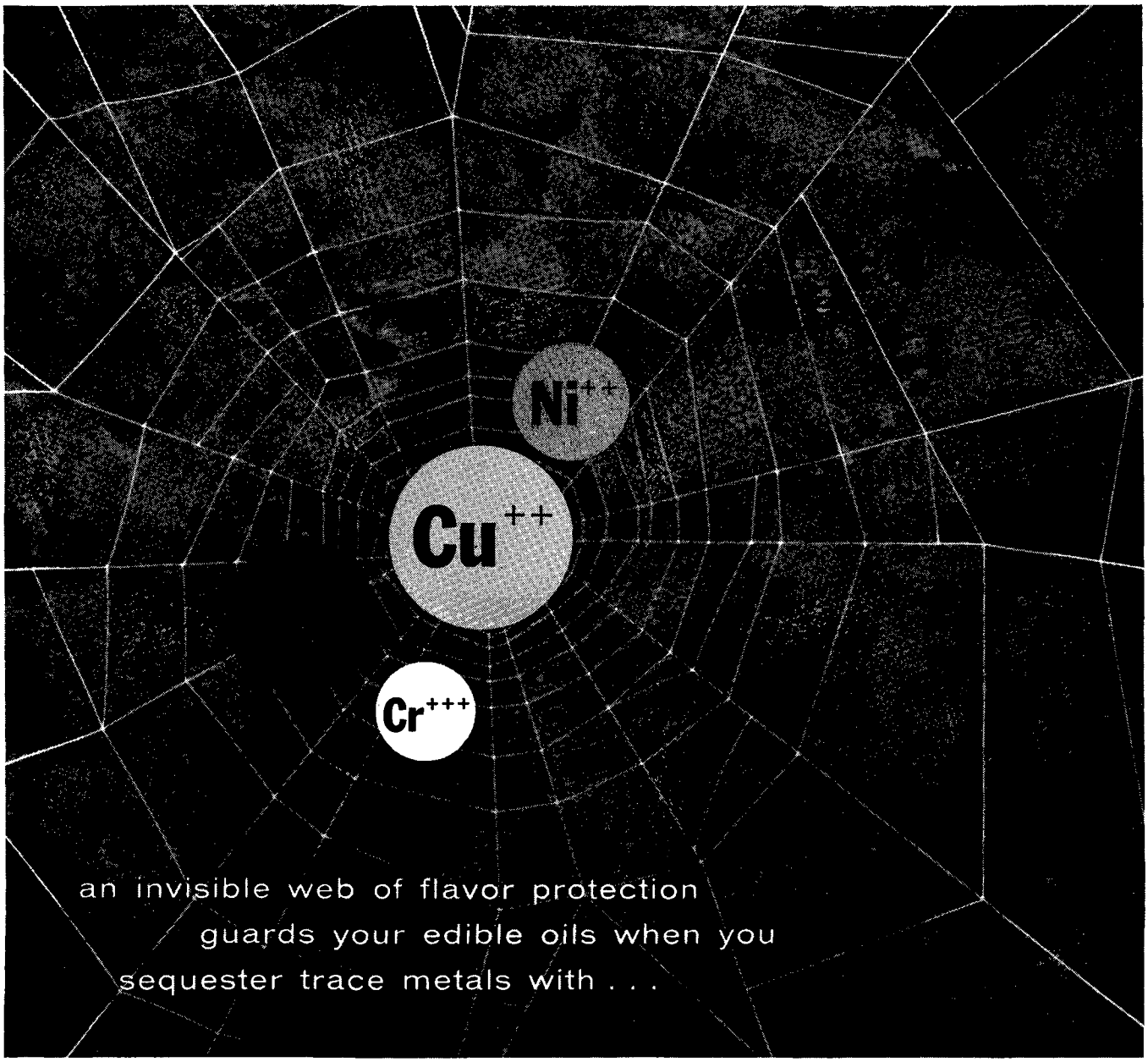
A DIVISION OF NATIONAL CYLINDER GAS COMPANY

LOUISVILLE 1, KENTUCKY

GAS PROCESSES DIVISION: New York, San Francisco

VOTATOR DIVISION: New York, Atlanta, San Francisco, Chicago

In Canada: Girdler Corporation of Canada Limited, Toronto



PFIZER CITRIC ACID

You can retard the development of off-flavors and off-colors in your hydrogenated oils easily and economically with Pfizer Citric Acid as your sequestering agent. It complexes metallic ions, so they can't oxidize unsaturated fatty acids. Find out—*in detail*—how Pfizer Citric can improve your product's stability and safeguard its sales appeal.

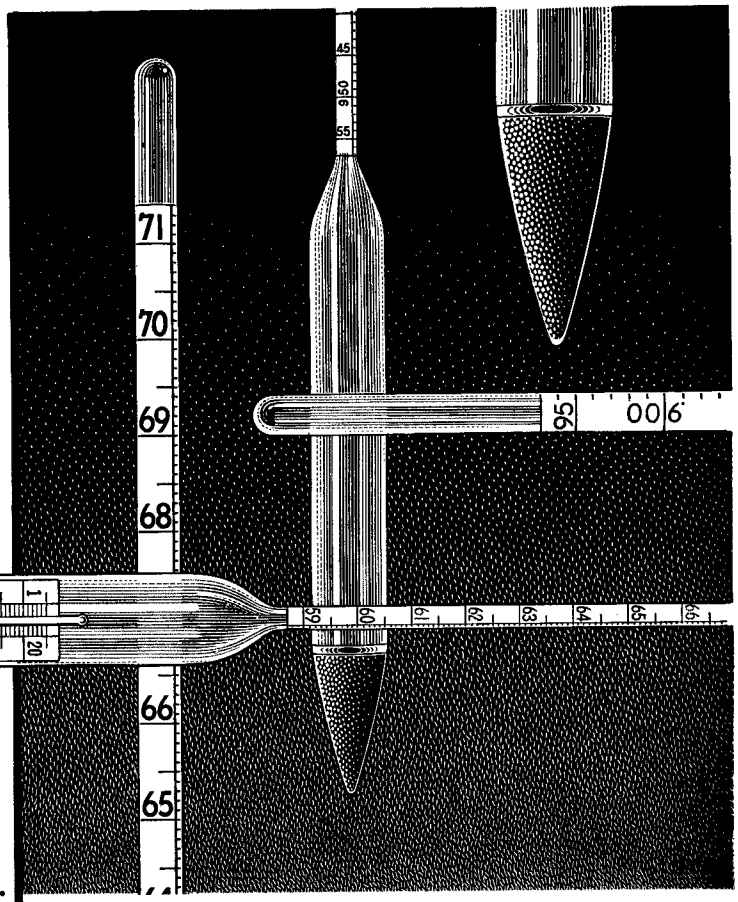
Write for Technical Bulletin 72.

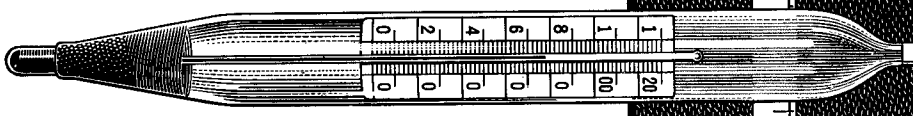
Manufacturing Chemists for Over 100 Years

CHAS. PFIZER & CO., INC.
Chemical Sales Division
630 Flushing Ave., Brooklyn 6, N.Y.
Branch Offices: Chicago, Ill.; San Francisco, Calif.; Vernon, Calif.; Atlanta, Ga.

NEW PRICES

Increased production . . . improved manufacturing methods make these new lower prices possible. Nothing is changed except the price.

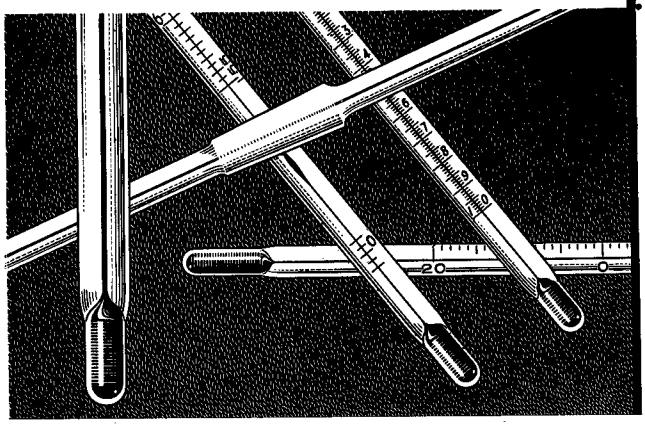




✓KIMBLE HYDROMETERS

HYDROMETERS: Kimble hydrometers are made from tubing having heavy walls in which the glass is evenly and uniformly distributed. Blanks are thoroughly annealed to increase mechanical strength. Scales are inscribed on strong, white ledger paper and are firmly attached to stems.

✓KIMBLE THERMOMETERS



THERMOMETERS: Here are thermometers designed to stay legible for a lifetime. The colored material used to fill the lines and numbers of the graduations is unaffected by organic materials and acids (except Hydrofluoric). Resistance to alkalis equals that of the thermometer glass itself.

In addition to the original calibrating every Kimble thermometer and hydrometer is *Individually Retested* before shipping to insure accuracy. N.B.S. specifications are minimum standards for Kimble thermometers and hydrometers. There is also a line of Kimble instruments made to A.S.T.M., A.P.I. and M.C.A. specifications.

At the old prices these instruments were an excellent value. At these new lower prices they are an even better bargain. Your laboratory supply dealer can give you complete information. Or write direct to Kimble Glass Company, subsidiary of Owens-Illinois, Toledo 1, Ohio, for an *Illustrated Price List.*

KIMBLE LABORATORY GLASSWARE
AN (I) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

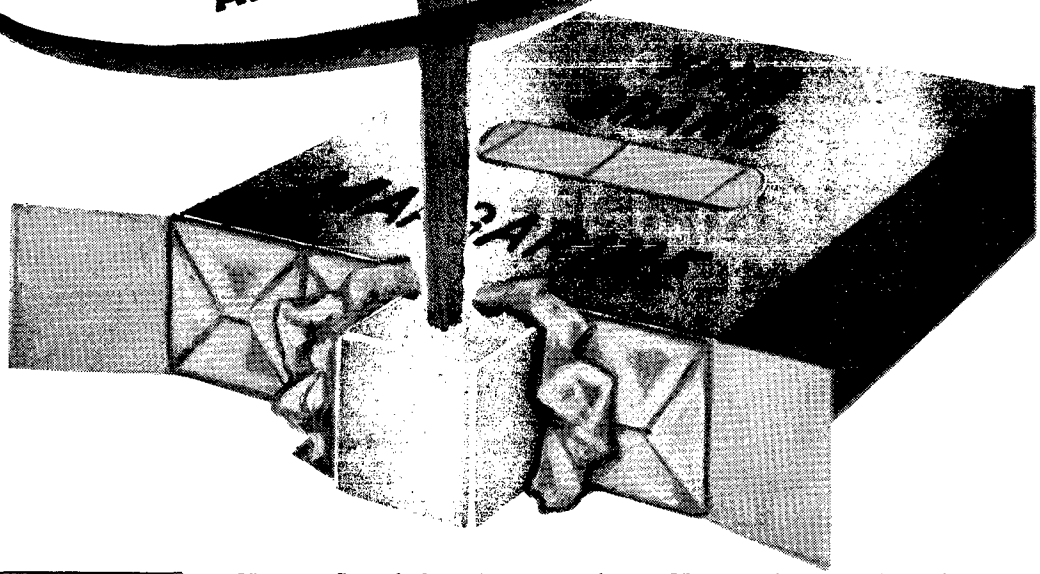
VITAMIN A-AND-COLOR

FOR MARGARINE

COMBINED IN ONE PRODUCT

Batch-Packed for Ea[illegible] Accurate and Economical
Fortification an[illegible]oloring of Margarine

ANOTHER *Sterwin* FIRST!



A[illegible]ble

VITAMIN A PALMITATE & ACETATE
In bulk or batch-size containers
PURE, OIL SOLUBLE F. D. & C. COLORS
to meet formula requirements
CRYSTALLINE VITAMIN D_2 (Calciferol)
In bulk or in combination with Vitamin A and Color

Now . . . Sterwin introduces a product which combines Vitamin A Palmitate and F. D. & C. Yellow in Vegetable Oil, batch-packed to fortify and color margarine to your formula requirements.

Sterwin Vitamin A and Color is a stable, true solution that mixes thoroughly and uniformly. No measuring. No weighing. Simply add one can to each batch. Does not affect the flavor or odor of the finished product.

Each shipment is compounded with pharmaceutical care. It is then assayed for both Vitamin A and color content before a Sterwin control number is assigned.

Write today for performance facts and quotations.

Sterwin Chemicals INC.

Subsidiary of Sterling Drug Inc.
1450 BROADWAY, NEW YORK 18, N. Y.

Pioneers in Food Enrichment

NEW SARGENT CENTRIFUGAL WET MILLS SIZES 1 & 2

Designed for the preparatory analytical milling of samples, the mills combine the functions of grinding, comminuting, mixing, extracting, dissolving and homogenizing many kinds of samples in the form of solid particles and of solid and fluid mixtures.

The mills are applicable to the distribution in solvents of soft or hard solids of the nature of seeds, starchy or proteinaceous and mildly fibrous solid materials. Particularly applicable to the reduction of oil bearing seeds for the analytical determination of oil content, the mills provide a convenient quantitative milling procedure without contamination or loss of the sample. The extraction and solution processes occur simultaneously with the milling.

The Size No. 1 mill will accommodate sample particles of the order of size of small oil bearing seeds including soy, sesame, poppy, flax, etc. The Size No. 2 mill accommodates samples of larger unit size such as corn, peanuts, and cotton seeds, the size being limited by the 15/32 inch diameter peripheral discharge orifices of the rotating grinding surface.

Both mills are driven by motors which rotate the inner grinding surface at 1725 r.p.m. This surface, designated the rotor, is in the form of a hollow cone, tapering downward with six perhipheral discharge orifices, 5/16 inch in diameter in the Size No. 1 mill and 15/32 inch in diameter in the Size No. 2 mill. A central inlet opening is located at bottom.

The rotor with its knurled surface is eccentrically located within the ring which provides the stationary stainless steel grinding surface. This ring, designated the stator, has a serrated inner surface, providing the second grinding surface of the mill. The stator is supported by two rods extending from the support housing. In operation solid material discharges into an eccentric annular space between the rotor and stator. The viscous drag of the rotor within this annular space carries the discharged material into the narrow part of the annular space where it is forced through the milling area and reduced by the cutting and crushing action of the two grinding faces.

All immersed elements of the mill are 18-8 stainless steel and have a close, compact design to facilitate the rinsing operation and to minimize the amount of required solution. Sample loss is prevented since there are no gaskets or bearings through which solvents may escape or seals and crevices in which particles may lodge.

The clearance adjustment in both the mills regulates the particle size of the milling material by determining the position of the rotating grinding head in relation to the stator. The mill is capable of grinding a sample to any desired fineness with an approximate limit of 300 mesh, the degree of fineness increasing as the milling period is extended.

S-61680 MILL ASSEMBLY — Centrifugal, Wet, Size No. 1, Sargent (Patent Pending).
Complete with S-61681 mill, support stand and aluminum beaker support. The support stand has U shaped base, rubber inserts and 18x½ inch 18-8 stainless steel rod..... **$125.00**

S-61681 MILL — Centrifugal, Wet, Size No. 1, Sargent (Patent Pending).
Consisting of mill only without support stand or beaker support. Net weight, approximately 8 pounds; overall height, 10 inches; overall width, 6 inches. Complete with cord and plug for operation from 115 volt, 50 or 60 cycle A.C. circuits **$110.00**

S-61690 MILL ASSEMBLY — Centrifugal, Wet, Size No. 2, Sargent (Patent Pending).
Consisting of the Size No. 2 mill, support stand and aluminum beaker support. Net weight of mill assembly, approximately 25 pounds; overall height, 19 inches; overall width, 8¼ inches; overall depth, 10 inches. Complete with cord and plug for operation from 115 volt, 50 or 60 cycle A.C. circuits. (Illustrated.) **$150.00**

SARGENT SCIENTIFIC LABORATORY INSTRUMENTS • APPARATUS • SUPPLIES • CHEMICALS

Catalog No. 100 Now Available

E. H. SARGENT & COMPANY, 4647 W. FOSTER AVE., CHICAGO 30, ILLINOIS
MICHIGAN DIVISION, 1959 EAST JEFFERSON STREET, DETROIT 7, MICHIGAN
SOUTHWESTERN DIVISION, 5915 PEELER STREET, DALLAS 19, TEXAS
SOUTHEASTERN DIVISION, 3125 SEVENTH AVE., N., BIRMINGHAM 4, ALA.

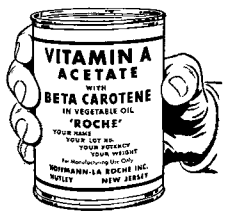
Great new and original Roche development

100% NATURAL COLOR with Total Vitamin A Potency

FOR MARGARINE

When you use vitamin A 'Roche' and beta carotene 'Roche' blended in vegetable oil you get *natural color* and *vitamin A potency* in *one* plant operation.

You may have vitamin A acetate or palmitate 'Roche' and beta carotene 'Roche' blended in vegetable oil to your specifications so that your margarine safely delivers the required vitamin A value of 15,000 U.S.P. units per pound and also meets your color requirements. Roche does the blending and delivers the material to you in sanitary tin cans which are especially suitable for batch mixing. Vitamin A and beta carotene 'Roche' dissolves readily in warm margarine oils with uniform distribution throughout the batch.



Batch size cans of Vitamin A and Beta Carotene 'Roche' blended in vegetable oil to your specifications.

No more messy mixtures of separate colors are needed. Beta carotene 'Roche' imparts a true natural color without tinge of green. It does not change to a reddish color as do some vegetable pigments during storage.

Beta carotene is the *natural,* non-toxic coloring matter of butter and other dairy products. It gives your food added nutritional value, too.

Adopt this modern Roche method of *fortifying* and *coloring* your margarine in *one operation.* Specify vitamin A with beta carotene 'Roche.' Ample supplies are assured.

Beta CAROTENE *'Roche'*

FOR SHORTENING and other foods

Beta carotene 'Roche' makes your good foods better because it gives them true, *natural* yellow color and at the same time *adds nutritional value.*

Available in a 24% semi-solid suspension, beta carotene 'Roche' supplies 400,000 U.S.P. units of vitamin A activity per gram. The amount of beta carotene 'Roche' required to color a pound of shortening represents 8000-9000 U.S.P. units of vitamin A.

Processing is simplified. The 24% semi-solid suspension of beta carotene 'Roche' dissolves readily in warm fluid shortening to give you uniform distribution of color and a substantial amount of vitamin A activity.

Plan now to put this new Roche product to work for you. Get the benefits of *natural color* and *added nutritional value* in your shortening.

24% Semi-solid Suspension of Beta Carotene 'Roche'

400,000 U.S.P. units per gram 'Roche' beta carotene in vegetable oils.

33-pound steel pails, double Synthetasine lined, with removable-replaceable-leverlok cover.

3-pound tripletite tamperpruf metal cans.

CALL ROCHE FOR VITAMINS

VITAMIN DIVISION • **HOFFMANN-LA ROCHE INC.** • NUTLEY 10, NEW JERSEY
NUtley 2-5000

Pacific Coast distributor: L. H. BUTCHER COMPANY, San Francisco • Los Angeles • Seattle Portland • Salt Lake City

In Canada: Hoffmann-La Roche Ltd., 286 St. Paul Street, West; Montreal, Quebec